

2004

Zoological RecordTM

INSECTA
PART B
COLEOPTERA

VOLUME 140 SECTION 13B
DECEMBER 2004

THOMSON



North & Latin America
3501 Market Street, Philadelphia, PA 19104 U.S.A.
Telephone: 215-386-0100, Fax: 215-386-6362, E-mail: sales@isinet.com

Europe, Middle East & Africa
14 Great Queen Street, London WC2B 5DF U.K.
Telephone: +44-20-7344-2800, Fax: +44-20-7344-2900, E-mail: ts.custserv.emea@thomson.com

Japan
Palaceside Building 5F, 1-1-1 Hitotsubashi, Chiyoda-ku, Tokyo 100-0003, Japan
Telephone: +81-3-5218-6530, Fax: +81-3-5218-6536, E-mail: ts.info.jp@thomson.com

New synonym Of <i>Ebaeus (Ebaeus) limbellus</i> Peyron 1877, in Russian p. 287			<i>Loebliorylon ivani</i>	
<i>Ebaeus altuiensis</i> Evers 1968	TSHERNYSHEV	(3527)	<i>Sp nov</i>	SLIPINSKI (3253)
New synonym Of <i>Ebaeus (Ebaeus) transbaicalicus transbaicalicus</i> Pic 1912, in Russian p. 289	TSHERNYSHEV	(3527)	<i>Indonesia, p. 927</i>	
<i>Ebaeus flavoriger</i> Evers 1971			<i>Loebliorylon magnus</i>	
New synonym Of <i>Ebaeus (Ebaeus) limbellus</i> Peyron 1877, in Russian p. 287	TSHERNYSHEV	(3527)	<i>Sp nov</i>	SLIPINSKI (3253)
<i>Ebaeus sailugemensis</i> Wittmer 1992			<i>Thailand, p. 929</i>	
New synonym Of <i>Ebaeus (Ebaeus) limbellus</i> Peyron 1877, in Russian p. 287	TSHERNYSHEV	(3527)	<i>Loebliorylon malayensis</i>	
<i>Ebaeus seavardii</i>			<i>Sp nov</i>	SLIPINSKI (3253)
<i>Sp nov</i>			<i>Malaysia, p. 938</i>	
Kazakhstan			<i>Loebliorylon minutus</i>	
In Russian p. 297	TSHERNYSHEV	(3527)	<i>Sp nov</i>	SLIPINSKI (3253)
<i>Ebaeus transbaicalicus korsumi</i>			<i>Thailand, p. 934</i>	
<i>Subsp nov</i>			<i>Loebliorylon montanus</i>	
Russia			<i>Sp nov</i>	SLIPINSKI (3253)
In Russian p. 290	TSHERNYSHEV	(3527)	<i>West Bengal, p. 932</i>	
<i>Ebaeus zoltani</i> Wittmer 1969			<i>Loebliorylon phang</i>	
New synonym Of <i>Ebaeus (Ebaeus) trimaculatus</i> Gebler 1830, in Russian p. 290	TSHERNYSHEV	(3527)	<i>Sp nov</i>	SLIPINSKI (3253)
<i>Enicopus (Enicopus) sarae</i>			<i>Malaysia, p. 938</i>	
<i>Sp nov</i>			<i>Loebliorylon smetanae</i>	
Spain, p. 55	BAHILLO DE LA PUEBLA	(222)	<i>Sp nov</i>	SLIPINSKI (3253)
<i>Hypebaeus alticus</i> Iablokoff-Khnzorian 1978			<i>Nepal, p. 936</i>	
Referred to <i>Ebaeus</i> , p. 287	TSHERNYSHEV	(3527)	<i>Loeblioryloninae</i> Slipinski 1990	
<i>Lobonyx aeneus</i>			Revision, p. 922	SLIPINSKI (3253)
Europe				
Iberian Peninsula				
Distribution revision & biological notes	DELA PUEBLA	(699)		
<i>Lobonyx gracilis</i>				
Europe				
Iberian Peninsula				
Distribution revision & biological notes	DELA PUEBLA	(699)		
<i>Malachidiidae</i>				
Germany				
Faunal records	KNAPP	(1760)		
FAMILY TROGOSITIDAE				
<i>Tennoscheila virescens</i>				
Indiana				
New record	WALTZ	(3653)		
SUPERFAMILY CUCUJOIDEA				
Key to families				
China				
Fossil taxa, in Chinese p. 132	HONG	(1382)		
<i>Brachypteridae</i>				
Hungary				
Aggtelek National Park	JELINEK	(1534)		
Annotated faunal list				
<i>Sibirellus corpulentus</i>				
Japan				
Distribution & biological notes	TAKAHASHI	(3424)		
<i>Sinisiylvana</i>				
<i>Gen nov</i>				
Of new family Sinisiylvanidae				
Type species <i>Sinisiylvana fushunensis</i> , in Chinese p. 134,	HONG	(1382)		
Eocene				
<i>Sinisiylvana fushunensis</i>				
<i>Sp nov</i>				
Liaoning, Eocene	HONG	(1382)		
In Chinese p. 134				
Described from amber				
<i>Sinisiylvanidae</i>				
<i>Fam nov</i>				
Type genus <i>Sinisiylvana</i> , in Chinese p. 132, Eocene	HONG	(1382)		
FAMILY CERYLONIDAE				
<i>Anommatius diecki</i>				
Austria				
New record	SCHILLHAMMER	(3105)		
<i>Anommatius duodecimstriatus</i> (Mueller 1821)				
First time described	NITZU	(2504)		
Male, p. 119				
<i>Anommatius othenicus</i>				
<i>Sp nov</i>				
Romania, p. 116	NITZU	(2504)		
<i>Hypodacne punctatus</i>				
Quebec				
Annotated new record	CHANTAL	(552)		
<i>Loebliorylon</i> Slipinski 1990				
Key to species				
Males, p. 923	SLIPINSKI	(3253)		
<i>Loebliorylon burckhardti</i>				
<i>Sp nov</i>				
Indonesia, p. 924	SLIPINSKI	(3253)		
<i>Loebliorylon ivani</i>				
<i>Sp nov</i>				
Indonesia, p. 927				
<i>Loebliorylon magnus</i>				
<i>Sp nov</i>				
Thailand, p. 929				
<i>Loebliorylon malayensis</i>				
<i>Sp nov</i>				
Malaysia, p. 938				
<i>Loebliorylon minutus</i>				
<i>Sp nov</i>				
Thailand, p. 934				
<i>Loebliorylon montanus</i>				
<i>Sp nov</i>				
West Bengal, p. 932				
<i>Loebliorylon phang</i>				
<i>Sp nov</i>				
Malaysia, p. 938				
<i>Loebliorylon smetanae</i>				
<i>Sp nov</i>				
Nepal, p. 936				
<i>Loeblioryloninae</i> Slipinski 1990				
Revision, p. 922				
FAMILY COCCINELLIDAE				
Arachnid prey				
Acarid				
Citrus groves, USA				VILLANUEVA (3612)
Biochemical variation				
rDNA genome size variation				
C-value estimates, taxonomic & phylogenetic implications				GREGORY (1156)
Community structure				
On crop, cultivated land, Brazil				MICHELOTTO (2269)
Trophic relations, effect of ecological management, cherry orchards,				TEZCAN (3465)
Turkey				
Comprehensive works				
Predators of insect pests, including systematics				SATHE (3073)
Dipteran parasites				
<i>Phylactrotophora decimaculata</i>				
New parasite species, Shaanxi				LIU (1987)
Fertilizer and pesticide pollution				
Insecticide toxicity				
Natural predators of cultivated crop lepidopteran pest, Punjab				KAUR (1644)
Insecticides				
Mortality rate effect, species feeding on Hemiptera, orchard, Italy				PASQUALINI (2684)
Fertilizers and pesticides				
Sucrose octanoate				
Impact on mortality, non-target species				MICHAUD (2266)
Habitat utilization				
Native species displacement from alfalfa fields by introduced species,				
Utah				EVANS (888)
Natural vegetation use by beneficial taxa, agricultural areas, habitat				BURGIO (462)
management implications, Italy				
History of zoology				
Research history				
Biographical & publication data, Austria				KLAUSNITZER (1736)
Insect prey				
<i>Acyrthosiphon pisum</i> (Hemiptera)				
Predator induced dispersal				SLOGGETT (3255)
<i>Aleurothrixus floccosus</i> (Hemiptera)				ULUSOY (3556)
Recorded, Turkey				
<i>Aonidiella orientalis</i> (Hemiptera)				PADMANABAN (2645)
Natural enemies recorded, Karnataka & Kerala				
Aphidoidea (Hemiptera)				
Invasive alien coleopteran threat to native predators, evaluation,				ADRIAENS (18)
Belgium				
Predators & pests survey & seasonal abundance in citrus orchard,				KAVALLERATOS (1645)
Greece				
Predators effect on prey population size, cereal crops, Uzbekistan				ARIPOV (144)
<i>Aphis fabae</i> (Hemiptera)				
Egypt				SEMEADA (3153)
<i>Aphis gossypii</i> (Hemiptera)				
Beneficial predator abundance, intercropping & plant variety effects,				IDRIS (1449)
chilli fields, Malaysia				
<i>Aphis spiraecola</i> (Hemiptera)				TREJO-LOYO (3512)
Records, Mexico				
<i>Diaphorina citri</i> (Hemiptera)				
Nymphal mortality rate & causes, biocontrol implications, Florida				MICHAUD (2263)
<i>Empoasca kerri</i> (Hemiptera)				
Intercropping effects on predator abundance & implications for prey				RAO (2857)
in rainy & post-rainy seasons, India				
<i>Frankliniella</i> (Thysanoptera)				
Population dynamics, prey abundance relations, cotton fields, Turkey				ATAKAN (192)
<i>Myzus nicotianae</i> (Hemiptera)				
Tobacco fields, Chile				FUENTES-CONTRERAS (1000)
<i>Parlatoria pergandei</i> (Hemiptera)				
Recorded, orchard, Yunnan				TAO (3438)
Predator population density on field crop, effect of seasonal				SRINIVASARAO (3317)
intercropping				
<i>Pulvinaria citricola</i> (Hemiptera)				
Records, Yunnan				CHEN (567)
Japan				
Honshu, Hiroshima				
Checklist including new record				SASAJI (3066)

Honshu, Osaka Prefecture & adjacent areas				
Recent records, annotated species list	SIIYAKE	(3201)		
Key to species				
Europe				
Species feeding on pest taxa found on <i>Brassica napus</i> (plant), p.214	ALFORD	(69)		
Key to subfamilies	CHAKRABORTY	(546)		
Sikkim, p.119				
Maharashtra				
West				
Predators of insect pests, systematics	SATHE	(3073)		
Molecular genetics				
mtDNA sequences of cytochrome oxidase I	PALENKO	(2664)		
Intraspecific & interspecific variation, phylogenetic & systematic significance				
Nepal				
New records, annotated checklist	ZIEGLER	(3862)		
Systematics & new records	CANEPA	(490)		
Population censuses				
Species survey report, city, England	MABBOTT	(2060)		
Population dynamics				
Reaction to liming & magnesium fertilizers, metal-polluted soils, Poland	JAWORSKA	(1531)		
Population size				
On crop, influence of number of weeds in field, cultivated land, Poland	POBOZNIAK	(2782)		
Prey				
Arthropoda				
Predator prey catalogue, India	OMKAR	(2597)		
Radar tracking				
Portable harmonic radar technology				
Potential for tracking beneficial taxa	BOITEAU	(359)		
Sampling				
Sticky cards, visual & sweep sampling				
Comparative study, alfalfa fields, New York	STEPHENS	(3353)		
Trap monitoring				
Potential of yellow sticky traps in cotton agroecosystems & use in seasonal activity analysis, Texas	PARAJULEE	(2675)		
Sikkim				
Faunal list, systematics & distribution including 33 new records	CHAKRABORTY	(546)		
South Dakota				
East & central				
Survey, community structure, distribution & biology notes	HESLER	(1338)		
Species diversity				
Biodiversity of predaceous taxa & role as bioindicators in agro-ecosystems, Pakistan	ZAHOOR	(3805)		
<i>Adalia bipunctata</i>				
Arachnid parasites				
<i>Coccipolipus hippodamiae</i>				
Prevalence, transmission efficiency & parasite effects on fertility as sexually transmitted disease, Europe	WEBBERLEY	(3686)		
Biological pollution				
Bi maize				
Non target effects	SCHMIDT	(3116)		
Diet				
Intraguild predation & cannibalism in choice conditions	SANTI	(3050)		
Fertilization				
Sperm storage				
Diapausing & nondiapausing females, Belgium	ARNAUD	(150)		
Haemolymph				
Reflex blood				
Presence of haemocyte like cells & non destructive method of DNA extraction	KARYSTINOU	(1631)		
Insect prey				
Coccinellidae (Coleoptera)				
Intraguild predation effects on survival & development, implications for invasive species	SATO	(3079)		
<i>Myzus, Acyrtosiphon & Brevicoryne</i> (Hemiptera)				
Predatory olfactory responses to prey & host plant volatile releases, effectiveness as kairomones	FRANCIS	(978)		
Life tables	LANZONI	(1872)		
Morphological variation				
Winglessness				
Genetic basis & fitness consequences, evolutionary implications, Netherlands	UENO	(3539)		
Mortality				
Overwintering mortality of native vs exotic species, population dynamics & control implications, Italy	BAZZOCCHI	(261)		
Protozoan parasites				
<i>Gregarina</i>				
New host records, Slovakia	VALIGUROVA	(3565)		
Warning coloration				
Aposematism				
Chemical defense strategies	MARPLES	(2121)		
<i>Adalia bipunctata bipunctata</i>				
Status, p. 208	PALENKO	(2664)		
<i>Adalia bipunctata fasciopunctata</i>				
Status, p. 208	PALENKO	(2664)		
<i>Adalia decempunctata</i>				
Arachnid parasites				
<i>Coccipolipus hippodamiae</i>				
Prevalence, transmission efficiency & parasite effects on fertility as sexually transmitted disease, Europe	WEBBERLEY	(3686)		
<i>Adonia variegata</i>				
Insect prey				
<i>Schizaphis graminum & Sitobion avenae</i>				
Predator amino acid composition, trophic relations indicator, Bulgaria	HARIZANOV	(1236)		
<i>Afidentula Dieke 1947</i>				
Key to species				
Sikkim, p.149				
<i>Afidentula Kapur 1955</i>				
Key to species				
Sikkim, p.150				
<i>Aiolocaria Crotch 1874</i>				
Key to species				
Sikkim, p.137				
<i>Anatis ocellata</i>				
Dipteran parasites				
<i>Phalacrotophora heuki</i>				
Parasite life cycle & systematics				
Germany				
Bavaria, Schweinfurt area				
New dipteran parasite record				
<i>Anisolemmia tetrasicta</i>				
Insect prey				
<i>Ctenarnautiella rugosa</i> (Hemiptera)				
Predator learning during capture of alternative prey				
<i>Axinoscyamus carditobus</i>				
Life tables				
Hemipteran prey relationships				
<i>Azya orbigeru orbigeru</i>				
Hymenopteran parasites				
<i>Homaloitylus shuvakhiniae</i>				
New parasite species, Mexico				
<i>Ballia Mulsant 1850</i>				
Key to species				
Sikkim, p.142				
<i>Brunoides kollapurensis</i>				
Sp nov				
Maharashtra, p.28				
<i>Brunoides suturalis</i>				
Insect prey				
<i>Aphis craccivora</i> (Hemiptera)				
Predator bionomics, rice agroecosystems, Delhi				
<i>Brunius octosignatus</i>				
Iran				
Khorasan Province, north east				
Annotated new record including hemipteran prey records				
<i>Calvia Mulsant 1850</i>				
Key to species				
Sikkim, p.138				
<i>Calvia quaduordecimguttata</i>				
Arachnid parasites				
<i>Coccipolipus hippodamiae</i>				
Prevalence, transmission efficiency & parasite effects on fertility as sexually transmitted disease, Europe	WEBBERLEY	(3686)		
<i>Ceratomegilla undecimnotata</i>				
Reproductive productivity				
Voltinism				
Indication from seasonal mating activity & gonad development, diapause relationship, Czech Republic	CERYNGIER	(540)		
<i>Chaeotolotis</i>				
Gen nov				
Of tribe Sticholotidini				
Type species <i>Chaeotolotis amy</i> , p. 398	SLIPINSKI	(3252)		
<i>Chaeotolotis amy</i>				
Sp nov				
Queensland, p.400	SLIPINSKI	(3252)		
<i>Cheiromenes sexmaculata</i>				
Insect prey				
<i>Aphis craccivora</i> (Hemiptera)				
Predator reproductive performance on specified prey	OMKAR	(2598)		
Reproductive behaviour				
Characteristics	OMKAR	(2590)		
<i>Chilocorus suraphuli</i> see <i>Chilocorus suraphuli</i>				
Chilocorinae				
Key to tribes				
Sikkim, p.129				
<i>Chilocorini</i>				
Key to genera				
Sikkim, p.129				
<i>Chilocorus</i>				
Insect prey				
<i>Phenacaspis kentiae</i> (Hemiptera)				
Records & biocontrol effectiveness, Yunnan	HUANG	(1417)		
<i>Chilocorus bipustulatus</i>				
Insect prey				
<i>Rhodococcus turanicus</i> (Hemiptera)				
Predators effect on prey population dynamics, Uzbekistan	RAKHMONOV	(2848)		
Iran				
Khorasan Province, north east				
Annotated new record including hemipteran prey records	YAGHMAEE	(3756)		
<i>Chilocorus infornalis</i>				
Distribution within habitat				
Spatial & temporal distribution in apple orchard, Pakistan	FAROOQ AHMED	(920)		
<i>Chilocorus kuwanae</i>				
Insect prey				
<i>Unaspis euonymi</i> (Hemiptera)				
Current prey status following previous release & establishment of exotic control agent, Massachusetts	VANDRIESCHE	(3569)		
<i>Chilocorus renipustulatus</i>				
Irruption				
Mass occurrence recorded, Finland	LINJA-AHO	(1980)		
<i>Chilocorus rubidus</i>				
Insect prey				
<i>Didesmococcus koreanus</i> (Hemiptera)				
Searching efficiency relationship with prey density	CHEN	(568)		
<i>Chilocorus suraphuli</i>				

Sp nov			
Maharashtra			
P. 34			
Also spelt <i>Chilocorus suryaphuli</i>	SATHE	(3073)	Prey species preferences, effects of relative availability & egg production relationships, females
<i>Coccophilus citricola</i>			<i>Eriosoma lanigerum</i> (Hemiptera)
Feeding rate	DASILVA	(662)	Feeding potential
Hemipteran prey, larvae			Hemiptera & Lepidoptera
Insect prey	DASILVA	(661)	Voracity of predators
<i>Aspidiottus nerii</i> (Hemiptera)			<i>Lipaphis erysimi</i> (Hemiptera)
Predation relation to biological aspects of captive rearing			Predator occurrence related to plant variety, Pakistan
Coccophiliinae	CHAKRABORTY	(546)	Niche breadth & overlap between predators & prey, effect of GCSC-BIA biocide & methomyl insecticide
Key to tribes			<i>Schizaphis graminum</i> & <i>Stibion avenae</i>
Sikkim, p. 130			Predator amino acid composition, trophic relations indicator, Bulgaria
<i>Coccinella madhuri</i> see <i>Coccinella madhuri</i>			<i>Toumeyella pini</i> (Hemiptera)
<i>Coccinella</i> Linnaeus 1758			Significance in control of introduced plant pest, Colorado
Key to species	CHAKRABORTY	(546)	Introduction
Sikkim, p. 140			Exotic species displacement of native species from alfalfa fields, Utah
<i>Coccinella</i>			Life cycle and development
Hymenopteran parasites			Phenology, effects of temperature & implications for control of Hemiptera, Uttar Pradesh
<i>Dinocampus coccinellae</i>	SLOGGETT	(3254)	Mammalian predators
Parasite prevalence & success in different hosts, role of host intrinsic factors vs myrmecophily, England			<i>Ochrotomys nuttalli</i>
<i>Coccinella bhutanica</i>	SATHE	(3073)	Aposematic prey palatability assessment cues
<i>Sp nov</i>			Mandibles
Maharashtra, p. 47			Comparative morphology
<i>Coccinella madhuri</i>			Mating
<i>Sp nov</i>			Age relationship
Maharashtra			Pollutants
P. 42			Cadmium & zinc
Also spelt <i>Coccinella madhuri</i>	SATHE	(3073)	Transfer from sewage sludge amended soil to adults via food chain
<i>Coccinella magnifica</i>			GREEN (1151)
Reproductive productivity			Protozoan parasites
Volitism			<i>Gregarinia</i>
Indication from seasonal mating activity & gonad development, diapause relationship, Czech Republic	CERYNGIER	(540)	New host records, Slovakia
<i>Coccinella quinquepunctata</i>			VALIGUROVA (3565)
Reproductive productivity			Reproductive productivity
Volitism			Age relationship
Indication from seasonal mating activity & gonad development, diapause relationship, Czech Republic	CERYNGIER	(540)	Volitism
<i>Coccinella septempunctata</i>	ZABALA	(3802)	Indication from seasonal mating activity & gonad development, diapause relationship, Czech Republic
Mythology, folklore and religion			CERYNGIER (540)
Regional rhymes, beliefs & names			Sampling
Spain			Sticky cards
<i>Coccinella septempunctata</i>			Escape rate
Antennae	SRIVASTAVA	(3321)	Warning coloration
SEM study	JING YING	(1559)	Aposematism
Biological notes			Chemical defense strategies
Chemical signals			Washington
Semi-chemicals			East
Role in interaction with intraguild hymenopteran parasite of hemipteran prey	NAKASHIMA	(2428)	Intraguild predation between exotic & native species & effects on invasion success
Control of			SNYDER (3274)
Aphidoidea (Hemiptera)			<i>Coccinella septempunctata brucki</i>
Hibernation site characteristics influence, agricultural landscapes, simulation study	BIANCHI	(320)	Insect prey
Diseases and disorders			<i>Aphis gossypii</i> (Hemiptera)
Ovarian dysfunction, seasonal variation, Tamil Nadu	RHAMHALINGHAN	(2909)	Prey abundance effect on cannibalism, intraguild predation & emigration
Egg laying			SATO (3078)
Oviposition	KHAN	(1692)	<i>Coccinellidae</i> (Coleoptera)
Circadian rhythms, Pakistan			Intraguild predation effects on survival & development, implications for invasive species
Feeding behaviour			SATO (3079)
Prey preference & switching behaviour	KHAN	(1694)	<i>Coccinella transversalis</i>
Hemipteran prey			Insect prey
Fertilizers and pesticides			Aphidoidea (Hemiptera)
Fungicides, insecticides & acaricides	RAUDONIS	(2864)	Influence of prey species on immature survival, development, predation & reproduction
Apple tree pesticides effect on density of beneficial predator species, Lithuania			OMKAR (2591)
Foraging			Prey consumption & searching efficiency
Foraging efficiency	LEGRAND	(1915)	<i>Aphis gossypii</i> (Hemiptera)
Impact of plant morphological complexity, insect prey			Searching & feeding efficiency of predator
Haemolymph			Interspecific competition
Reflex blood	KARYSTINOU	(1631)	<i>Menochilus sexmaculatus</i> (Coleoptera)
Presence of haemocyte like cells & non destructive method of DNA extraction			Heterospecific competitors, effects on competitor feeding & oviposition
Hymenopteran parasites			AGARWALA (21)
<i>Dinocampus coccinellae</i>	CERYNGIER	(540)	Reproductive behaviour
Parasitism effect on reproductive activity, Czech Republic			Characteristics
Insect predators			<i>Coccinella transversoguttata</i>
Intraguild predation in aphidophagous taxa	HINDAYANA	(1349)	Washington
Insect prey			East
<i>Acyrtosiphon pisum</i> (Hemiptera)	NAKASHIMA	(2429)	Intraguild predation between exotic & native species & effects on invasion success
Trails avoidance by hymenopteran parasite			SNYDER (3274)
<i>Acyrtosiphon pisum</i>			<i>Coccinella undecimpunctata</i>
Predatory efficiency & consumption rates, effects of dimethoate residues & contaminated prey	SINGH	(3232)	Dormancy
Aphidiidae (Hemiptera)			Overwintering
Prey species effects on life history parameters	KALUSHKOV	(1613)	Temperature & nutrition effect
Aphidoidea (Hemiptera)			WANG (3662)
Biocontrol efficiency & conservation, alternate prey availability in non crop habitat effects, model	BIANCHI	(319)	Insect predators
Feeding efficacy, Pakistan	KHAN	(1692)	<i>Harmonia axyridis</i> (Coleoptera)
Feeding on neem treated prey effects on development, consumption rate, longevity & mortality	AHMAD	(23)	Intraguild predation, developmental stages, role of mobility & body weight
Predator abundance survey in semiarid wheat production systems & hemipteran pest control potential, Washington	CLEMENT	(594)	FELIX (933)
Prey consumption & searching efficiency	OMKAR	(2599)	<i>Aphis gossypii</i> (Hemiptera)
<i>Aphis craccivora</i> (Hemiptera)	KATAYAMA	(1642)	Prey prevalence effect, cultivated land, Xinjiang Uygur
Bodyguard effects of hymenopteran associates			WANG (3663)
Coleoptera & Hemiptera			<i>Harmonia axyridis</i> (Coleoptera)
			Intraguild predation, developmental stages, role of mobility & body weight
			<i>Lipaphis erysimi</i> (Hemiptera)
			Predator occurrence related to plant variety, Pakistan
			TALPUR (3432)
			Population density
			Crop intercropping system influence on abundance of hemipteran pest predator, Egypt
			IBRAHIM (1443)
			<i>Coccinella yuminii</i>
			<i>Sp nov</i>
			Maharashtra, p. 52
			SATHE (3073)
			<i>Coccinella yoginii</i> see <i>Coccinella yoginii</i>

<i>Coccinella yoginii</i>			JING	(1560)
Sp nov				
Maharashtra			FU	(998)
P. 57				
Also spelt <i>Coccinella yogini</i>	SATHE	(3073)		
Coccinellinae				
Key to tribes				
Sikkim, p. 131	CHAKRABORTY	(546)		
Coccinellini				
Key to genera				
Sikkim, p. 132	CHAKRABORTY	(546)		
<i>Coelophora</i> Mulsant 1850				
Key to species				
Sikkim, p. 135	CHAKRABORTY	(546)		
<i>Coelophora orientalis</i>				
Sp nov				
Maharashtra, p. 61	SATHE	(3073)		
<i>Coleomegilla maculata</i>				
Fertilizers and pesticides				
Bt sweet corn, indoxacarb & spinosad				
Non-target impact & biocontrol implications, sweet corn fields, New York	MUSSER	(2408)		
Food plants				
Corn pollen nutritional suitability evaluation	LUNDGREN	(2048)		
<i>Zea mays</i>				
Pollen consumption & population responses during anthesis, Illinois	LUNDGREN	(2047)		
Insect prey				
<i>Anasa tristis</i> (Hemiptera)	RONDON	(2959)		
Consumption rates & biocontrol potential, Florida				
<i>Ostrinia nubilalis</i> (Lepidoptera)				
Predation on eggs in sweet corn by generalist predators & impact of alternative foods, New York	MUSSER	(2407)		
Interspecific competition				
Mortality & weight gain of larvae, Minnesota	HOOGENDOORN	(1383)		
Population density				
Foliar & ground dwelling non-target species in bloom, Kansas	AL-DEEB	(47)		
Sampling				
Sticky cards				
Escape rate	STEPHENS	(3353)		
<i>Coleomegilla maculata fuscitabris</i>				
Arachnid prey				
<i>Tetranychus urticae</i>	RONDON	(2958)		
Predation rate & feeding preferences				
Insect prey				
<i>Aphis gossypii</i> (Hemiptera)	RONDON	(2958)		
Predation rate & feeding preferences				
<i>Coleomegilla maculata lengi</i>				
Mortality				
Non target toxicity of different insecticides against coleopteran prey, implications for control	LUCAS	(2036)		
<i>Cryptognathus</i> Mulsant 1850				
Key to species				
Sikkim, p. 126	CHAKRABORTY	(546)		
<i>Cryptognathus himalayensis</i>				
Uttar Pradesh				
New record	OMKAR	(2596)		
<i>Cryptolaemus montrouzieri</i>				
Hymenopteran parasites				
<i>Meiusenus concinnum</i>				
New host record, Iran	GHARIZADEH	(1078)		
<i>Curinus coeruleus</i>				
Insect predators				
Coccinellidae (Coleoptera) & <i>Chrysoperla</i> (Neuroptera)				
Intraguild predation, defensive function of larval spines	MICHAUD	(2265)		
Insect prey				
<i>Diaphorina citri</i> (Hemiptera)				
Introduced prey suitability, control implications, Florida	MICHAUD	(2267)		
<i>Cycloneura callispila</i> (Guerin-Meneville 1844)				
Referred to				
<i>Neda</i> , p. 3	ARAUJO	(133)		
<i>Cycloneura sanguinea</i>				
Chromosomes				
Mitotic & meiotic chromosomes				
C-banding patterns & rDNA sequence mapping using FISH	MAFFEI	(2077)		
Development				
Time, temperature relationship, biological control of hemipteran prey implications	CARDOSO	(502)		
Feeding behaviour				
Sibling egg cannibalism				
Nature & adaptive significance	MICHAUD	(2264)		
Insect prey				
<i>Cinara</i> (Hemiptera)				
Feeding rate, temperature effects	CARDOSO	(503)		
<i>Diaphorina citri</i> (Hemiptera)				
Introduced prey suitability, control implications, Florida	MICHAUD	(2267)		
<i>Schizaphis granulata</i> (Hemiptera)				
Predator survival, development & reproduction, influence of prey host plant genotype	DOS SANTOS	(804)		
Mortality				
Mortality rate				
Egg, larvae & pupa, temperature relationship, biological control of hemipteran prey implications	CARDOSO	(502)		
<i>Cycloneura tredecimpunctata</i> (Mulsant 1850)				
Referred to				
<i>Neda</i> , p. 6	ARAUJO	(133)		
<i>Delphastus catalinae</i>				
Arachnid prey				
<i>Tetranychus</i>				
Predator development, survival, fecundity & population growth effect				
			JING	(1561)
			FU	(998)
			SIMMONS	(3223)
			JING	(1561)
			SIMMONS	(3223)
			ABD-RABOU	(5)
			CHAKRABORTY	(546)
			Li	(1957)
			MANDAL	(2103)
			LI	(1957)
			KOJI	(1775)
			FUJIYAMA	(1006)
			VALLADARES	(3566)
			DAS	(678)
			DHARMARETNAM	(769)
			DHARMARETNAM	(769)
			CHAKRABORTY	(546)
			HLIVKO	(1358)
			SAITO	(3011)
			OTSU	(2629)
			DAS	(678)
			SHANMUGAPRIYAN	(3174)
			FUJIYAMA	(1006)
			MANDAL	(2103)
			CHAKRABORTY	(546)
			DEALMEIDA SARMENTO	(688)

<i>Diaphorina citri</i> (Hemiptera)				
Introduced prey suitability, control implications, Florida	MICHAUD	(2267)		
<i>Exochomus flavipes</i>				
Iran				
Khorasan Province, north east				
Annotated new record including hemipteran prey records	YAGHMAEE	(3756)		
<i>Exochomus melanocephalus</i>				
Iran				
Khorasan Province, north east				
Annotated new record including hemipteran prey records	YAGHMAEE	(3756)		
<i>Exochomus quadripustulatus</i>				
Insect prey				
<i>Rhodococcus turanicus</i> (Hemiptera)				
Predators effect on prey population dynamics, Uzbekistan	RAKHMONOV	(2848)		
Iran				
Khorasan Province, north east				
Annotated new record including hemipteran prey records	YAGHMAEE	(3756)		
<i>Gymnosynurus explanatus</i> Blackburn 1895	SLIPINSKI	(3252)		
Lectotype designated, p. 391				
New synonym				
Of <i>Sitocholotis quadrivittata</i> (Blackburn 1892), p. 391	SLIPINSKI	(3252)		
<i>Halyzia</i> Mulsant 1846				
Key to species				
Sikkim, p. 143				
<i>Halyzia nepalensis</i>	CHAKRABORTY	(546)		
Sp nov				
Nepal, p. 261	CANEPAI	(490)		
<i>Halyzia sedecimguttata</i>				
England				
Sheffield & surrounding area				
Distribution	WHITELEY	(3719)		
Scotland				
Glasgow, Hyndland				
New record	GRIST	(1160)		
<i>Harmonia axyridis</i>				
Aggregating behaviour				
Winter aggregation in concrete observation tower, Pennsylvania	SCHAFFER	(3085)		
Belgium				
Invasive alien species threat to native predators of Hemiptera, evaluation	ADRIAENS	(18)		
Control of				
<i>Myzus persicae</i> (Hemiptera)				
Evaluation, greenhouse crop habitat	LAROCK	(1876)		
Development				
Different constant temperatures, hemipteran prey	EL-GANTIRY	(853)		
Development				
Fitness consequences of Bt-transgenic cotton	LI	(1954)		
Diet				
Intraguild predation & cannibalism in choice conditions	SANTI	(3050)		
Enzymes				
Acid phosphatase				
Egg, purification & characterization	LEE	(1904)		
Feeding behaviour				
Predation activity by different phenotypes, effect of temperature & intraspecific alometry	SOARES	(3275)		
Sibling egg cannibalism				
Nature & adaptive significance	MICHAUD	(2264)		
Fertilizers and pesticides				
Bt sweet corn, indoxacarb & spinosad				
Non-target impact & biocontrol implications, sweet corn fields, New York	MUSSER	(2408)		
Buprofezin				
Effects on immature stage development & survival, laboratory study, vineyards, Washington	JAMES	(1521)		
Insecticides				
Effects on egg number	WANG XIAOYI	(3658)		
Food plants				
Autumn-ripening fruit preferences, potential pest status evaluation	KOCH	(1765)		
<i>Zea mays</i>				
Pollen consumption & population responses during anthesis, Illinois	LUNDGREN	(2047)		
Fungal diseases				
<i>Beauveria bassiana</i>				
Host susceptibility, Georgia-USA	COTTRELL	(626)		
<i>Heteromyces virens</i>				
New host record, Ohio	GARCES	(1022)		
Germany				
Berlin				
Overwintering record				
New record	SCHOELLER	(3122)		
Insect predators	BRENNER	(428)		
<i>Coccinella undecimpunctata</i> (Coleoptera)				
Intraguild predation, developmental stages, role of mobility & body weight	FELIX	(933)		
<i>Coccinellidae</i> (Coleoptera) & <i>Chrysoperla</i> (Neuroptera)				
Intraguild predation, defensive function of larval spines	MICHAUD	(2265)		
Insect prey				
<i>Acyrtosiphon pisum</i> (Hemiptera)				
Inclusive fitness benefits to prey of alarm pheromone marking of predator in parthenogenetic colony	MONDOR	(2308)		
Aphidoidea (Hemiptera)				
Attraction & selectivity responses to prey odours & prey associated plant volatiles	QU	(2835)		
<i>Aphis</i> & <i>Myzus</i> (Hemiptera)				
Food preferences of adults, reproductive capacity on single vs mixed diets	SOARES	(3276)		
<i>Aphis gossypii</i> (Hemiptera)				
Adult prey dispersal in greenhouse habitat, effect of conspecific larval presence			GIL	(1089)
Predator numerical response to prey population density, flightless strains			TOURNIAIRE	(3509)
<i>Coccinella undecimpunctata</i> (Coleoptera)				
Intraguild predation, developmental stages, role of mobility & body weight			FELIX	(933)
<i>Coccinellidae</i> (Coleoptera)				
Intraguild predation effects on survival & development, implications for invasive species			SATO	(3079)
<i>Diaphorina citri</i> (Hemiptera)				
Introduced prey suitability, control implications, Florida	MICHAUD	(2267)		
Hemiptera & Lepidoptera				
Voracity of predators			LUCAS	(2037)
<i>Ostrinia nubilalis</i> (Lepidoptera)				
Predation on eggs in sweet corn by generalist predators & impact of alternative foods, New York			MUSSER	(2407)
<i>Schizaphis graminum</i> (Hemiptera)				
Functional response under different constant temperatures			EL-GANTIRY	(853)
Interspecific competition				
Mortality & weight gain of larvae, Minnesota			HOOGENDOORN	(1383)
Life tables			LANZONI	(1872)
Life tables				
Different constant temperatures, hemipteran prey			EL-GANTIRY	(853)
Mortality				
Effects of sublethal insecticide treatment, intraguild predation relationships, apple orchards, Quebec			PROVOST	(2814)
Mortality				
Overwintering mortality of native vs exotic species, population dynamics & control implications, Italy			BAZZOCCHI	(261)
Neetherlands				
Exotic species distribution & possible origins			CUPPEN	(651)
North Dakota				
Barnes County, Valley City				
New record & large summer population recorded			HESLER	(1337)
Sampling				
Sticky cards			STEPHENSON	(3353)
Escape rate				
South Dakota				
East & central				
Survey, distribution & biology notes			HESLER	(1338)
Survival				
Adults, temperature & duration of cold exposure relationships			BERTHIAUME	(300)
Symmetry				
Fluctuating asymmetry				
Response to stress of Bt-transgenic cotton			LI	(1954)
Temperature relationships				
Cold hardiness				
Influencing factors, USA			KOCH	(1767)
Temperature				
Life stages metabolism relationship			ACAR	(8)
Variation				
Genetic variation				
Larval period & pupal mass, hemipteran prey effects, Japan			UENO	(3540)
Washington				
Intraguild predation between exotic & native species & effects on invasion success			SNYDER	(3274)
<i>Harmonia axyridis</i>				
Insect prey				
<i>Aphis gossypii</i> (Hemiptera)				
Prey abundance effect on cannibalism, intraguild predation & emigration			SATO	(3078)
<i>Harmonia sedecimnotata</i>				
Starvation				
Trophic diapause			SEMYANOV	(3157)
Effect on fecundity & longevity, females				
<i>Harmonia soyabiniti</i>				
Sp nov				
Maharashtra, p. 67			SATHE	(3073)
<i>Henosepilachna</i> Li 1961				
Key to species				
Sikkim, p. 147			CHAKRABORTY	(546)
<i>Henosepilachna</i> Li in Li & Cook 1961				
Systematics				
Revival of genus name, p. 16			SASAJI	(3065)
<i>Henosepilachna sikkimensis</i> (Kapur 1963)				
Comb nov				
Transferred from <i>Epilachna</i> , p. 149			CHAKRABORTY	(546)
<i>Henosepilachna vigintioctopunctata</i>				
Endocrinology				
Sub-oophageal ganglion neurosecretory cell cyclic activity & axonal pathway			GUPTA	(1190)
<i>Hippodamia convergens</i>				
Associations				
<i>Pisum sativum</i> (plant)				
Plant leaf wax effects on associated insect interactions			CHANG	(551)
Development				
Time, temperature relationship, biological control of hemipteran prey implications			CARDOSO	(502)
Distribution within habitat				
Timing, magnitude, rates & causes of predator movement between cotton & grain sorghum fields, Texas			PRASIFKA	(2807)
Ecological techniques				
ELISA system for monitoring intercrop movement & feeding activity of mass released insect predators, Arizona			HAGLER	(1205)
Ecological techniques				
Optimization of protein specific ELISA for detection of protein marked individuals			HAGLER	(1203)

Egg number			<i>Lobesia botrana</i> (Lepidoptera)	
Evidence from stable carbon isotope analysis, Texas	PRASIFKA	(2808)	Effect of bacterial products on predator & prey, control implications	ANAGNOU (92)
Food preferences	PRASIFKA	(2808)	Development	KONTODIMAS (1799)
Dietary shift following crop colonization, evidence from stable carbon isotope analysis, Texas	PRASIFKA	(2808)	Temperature effect, model evaluation, hemipteran prey	
Habitat colonization			<i>Nephus ryugagus</i>	
Crop colonization			Insect prey	
Evidence from stable carbon isotope analysis, Texas	PRASIFKA	(2808)	<i>Oracella acuta</i> (Hemiptera)	
Insect prey			Predation impact on pest population density in pine forest, China	LI (1955)
<i>Bemisia tabaci</i> (Hemiptera)	HAGLER	(1204)	<i>Nephus similicladens</i>	
Feeding rate, foraging behaviour & predator prey interactions	CARDOSO	(503)	Sp nov	
<i>Cinara</i> (Hemiptera)	CARDOSO	(502)	Nepal, p.262	CANEPAARI (490)
Feeding rate, temperature effects	AL-DEEB	(47)	<i>Nesolotis</i> Miyatake 1966	
Mortality			New synonym	SLIPINSKI (3252)
Mortality rate			<i>Osticholotis</i> Crotch 1874, p. 390	
Egg, larvae & pupa, temperature relationship, biological control of hemipteran prey implications	CARDOSO	(502)	<i>Oenopia</i> Mulsant 1850	
Population density			Key to species	CHAKRABORTY (546)
Polar & ground dwelling non target species in Btocorn, Kansas	AL-DEEB	(47)	Sikkim, p.133	
Washington			<i>Oenopia conglobata</i>	
East			Temperature	
Intraguild predation between exotic & native species & effects on invasion success	SNYDER	(3274)	Effect on developmental time & oviposition rate	MOJIB HACHHADAM (2302)
<i>Hippodamia divergens</i>			<i>Oenopia kirbyi</i>	
Insect prey			Insect prey	
<i>Toumeyella pini</i> (Hemiptera)	COOPER	(615)	<i>Aphis & Brevicoryne</i> (Hemiptera)	
Significance in control of introduced plant pest, Colorado			Larval consumption rate & sex differences in lifetime quantities	DAYAL (687)
<i>Hippodamia notata</i>	MERKL	(2250)	<i>Olla Casey</i>	
Hungary			Galapagos Islands	VANDENBERG (3580)
Aggtelek National Park			Santa Cruz & Isabela islands	
New record			Systematics & review of habits & distribution	VANDENBERG (3580)
<i>Hippodamia tredecimpunctata</i>	ALEXANDER	(65)	<i>Olla hageni</i> Vandenberg	
England			Diagnostic characters, p. 623	
Cornwall, Helston			<i>Olla lacrimosa</i>	
New record			Sp nov	VANDENBERG (3580)
Dorset			Galapagos Islands, p.620	
Unusual distribution record	FALK	(913)	<i>Olla quinquenotatum</i>	
<i>Hippodamia variegata</i>	LANZONI	(1872)	Feeding behaviour	
Life tables			Sibling egg cannibalism	MICHAUD (2264)
Temperature	JAFARI	(1513)	Nature & adaptive significance	
Effect on developmental time & oviposition rate	SATHE	(3073)	<i>Olla v-nigrum</i> Mulsant	VANDENBERG (3580)
<i>Horniolus miraensis</i>			Diagnostic characters, p. 623	
Sp nov			<i>Olla v-nigrum</i>	
Maharashtra, p.102			Fungal diseases	
<i>Hyperaspis binotata</i>			<i>Beauveria bassiana</i>	
Insect prey			Host susceptibility, Georgia-USA	COTTRELL (626)
<i>Toumeyella parvicornis</i> (Hemiptera)	BISHOP	(336)	Insect predators	
Hymenopteran mutualism importance in protection of prey from predation, Michigan			<i>Coccinellidae</i> (Coleoptera) & <i>Chrysoperla</i> (Neuroptera)	MICHAUD (2265)
<i>Ileis</i> Mulsant 1850	CHAKRABORTY	(546)	Intraguild predation, defensive function of larval spines	
Key to species			<i>Insect prey</i>	
Sikkim, p.143			<i>Diaphorina citri</i> (Hemiptera)	
<i>Ileis darwurit</i>	SATHE	(3073)	Introduced prey suitability, control implications, Florida	MICHAUD (2267)
Sp nov			<i>Paranescotis Hoang 1984</i>	
Maharashtra, p.97	SATHE	(3073)	New synonym	
<i>Ileis sathei</i>	SATHE	(3073)	<i>Osticholotis</i> Crotch 1874, p. 390	SLIPINSKI (3252)
Sp nov			<i>Platynaspisidius maculosus</i>	
Maharashtra, p.92	SATHE	(3073)	Japan	SASAJI (3067)
<i>Menochilus kharipi</i>	SATHE	(3073)	New record	
Sp nov			<i>Propylea japonica</i>	
Maharashtra, p.84	SATHE	(3073)	Chemical factors	
<i>Menochilus sexmaculatus</i>			Bt toxin	
Interspecific competition			Acquired from insect prey feeding on genetically modified plant, effects on biology	ZHANG GUI-FEN (3826)
Coccinellidae (Coleoptera) & Syrphidae (Diptera)	AGARWALA	(21)	Distribution within habitat	
Heterospecific competitors, effects on feeding & oviposition	AGARWALA	(21)	Spatial relationships with lepidopteran prey & alternative insect predator, China	LU (2034)
Intraspecific competition			Fertilizers and pesticides	
Conspecific competitors, effects on feeding & oviposition	AGARWALA	(21)	Pesticide influence on non-target beneficials associated with cotton, Henan	MEN (2241)
<i>Menochilus sexmaculatus</i>			<i>Insect prey</i>	
Insect prey			<i>Aphis gossypii</i> (Hemiptera)	
<i>Macrosiphoniella sanborni</i> (Hemiptera)	DUAN	(819)	Tritrophic interactions on cotton	DU (818)
Predation in relation to temperature & prey density			<i>Myzus persicae</i> (Hemiptera)	
<i>Menochilus sexmaculatus</i>	SAMINATHAN	(3029)	Predatory behaviour & predator prey interactions, models	HUANG (1414)
Population size			<i>Propylea dissecta</i> (Mulsant 1850)	
Correlation with weather factors, cotton crops, Tamil Nadu			Syn nov	
Rearing techniques			<i>Propylea fallax</i> Iablokoff-Khnzorian 1977, p. 261	CANEPAARI (490)
Mass rearing	KHAN	(1693)	<i>Propylea dissecta</i>	
Artificial & natural diets	SATHE	(3073)	Insect prey	
<i>Menochilus shivajensis</i>			<i>Aphis gossypii</i> (Hemiptera)	
Sp nov			Functional & numerical responses to increasing prey density	OMKAR (2594)
Maharashtra, p.79	SATHE	(3073)	<i>Brevicoryne brassicae</i> (Hemiptera)	PERVEZ (2741)
<i>Menochilus tuljapurensis</i>	SATHE	(3073)	Predation potential & handling time estimates	
Sp nov			Orientation	
Maharashtra, p.75	SATHE	(3073)	Ovipositional orientation, experimental study	OMKAR (2593)
<i>Neda callispilota</i> (Guerin-Meneville 1844)	ARAUJO	(133)	Temperature	
Combination revalidated	ARAUJO	(133)	Temperature-dependent development & immature survival rates, control implications, laboratory study	OMKAR (2595)
Transferred track from <i>Cycloneda</i> , p.3			<i>Propylea fallax</i> Iablokoff-Khnzorian 1977	
Redescription, p.3			New synonym	
<i>Neda tredecimsignata</i> (Mulsant 1850)	ARAUJO	(133)	<i>Propylea dissecta</i> (Mulsant 1850), p. 261	CANEPAARI (490)
Comb nov			<i>Propylea japonica</i>	
Transferred from <i>Cycloneda</i> , p.6	ARAUJO	(133)	Insect prey	
Redescription, p.7	ARAUJO	(133)	<i>Aphis gossypii</i> (Hemiptera)	
<i>Nephus (Seditis) hickiei</i>	FALLAHZADEH	(914)	Prey abundance effect on cannibalism, intraguild predation & emigration	SATO (3078)
Iran			<i>Propylea quatuordecimpunctata</i>	
Fars province, Shiraz			Mortality	
New record			Overwintering mortality of native vs exotic species, population dynamics & control implications, Italy	BAZZOCCHI (261)
<i>Nephus bisignatus</i>	KONTODIMAS	(1799)	<i>Protoplatina</i> Miyatake 1994	
Development			India	
Temperature effect, model evaluation, hemipteran prey				
<i>Nephus includens</i>				
Control of				

<i>New record & systematics</i>				
Key to species, p. 4				
<i>Protoplovin nigrosuturalis</i>	POORANI (2801)	<i>Scymnus (Pullus) marathi</i>		
<i>Sp nov</i>	POORANI (2801)	<i>Sp nov</i>	SATHE (3073)	
Uttar Pradesh, p. 4		Maharashtra, p. 113		
<i>Pseudospidimerus flaviceps</i>	POORANI (2801)	<i>Scymnus (Pullus) weigeli</i>	CANEPAARI (490)	
Uttar Pradesh		<i>Sp nov</i>		
New record		Nepal, p. 263		
<i>Pseudoscymnus Chapin 1962</i>	OMKAR (2596)	<i>Scymnus (Scymnus) indica</i>	SATHE (3073)	
Preoccupied name replaced by		<i>Sp nov</i>		
<i>Sasajiscymnus</i> , p. 483		Maharashtra, p. 107		
<i>Pseudoscymnus kurohime</i> Miyatake	VANDENBERG (3579)	<i>Scymnus doriae</i> Capra 1924		
Referred to		Poland		
<i>Sasajiscymnus</i> , p. 483		Wyzyna Lubelska Upland, Zawadowka		
<i>Pseudoscymnus pilicrepus</i>	VANDENBERG (3579)	New record & systematics	STACZEK (3323)	
Referred to		Distribution within habitat		
<i>Sasajiscymnus</i> , p. 483		Timing, magnitude, rates & causes of predator movement between cotton		
<i>Pseudoscymnus quinquepunctatus</i> Weise	VANDENBERG (3579)	& grain sorghum fields, Texas	PRASIFKA (2807)	
Referred to		<i>Scymnus pyrocheilus</i>		
<i>Sasajiscymnus</i> , p. 483		Interspecific competition		
<i>Pseudoscymnus seboshii</i> Ohta	VANDENBERG (3579)	<i>Menochilus sexmaculatus</i> (Coleoptera)		
Referred to		Heterospecific competitors, effects on competitor feeding &		
<i>Sasajiscymnus</i> , p. 483		oviposition	AGARWALA (21)	
<i>Pseudoscymnus sylvaticus</i>	VANDENBERG (3579)	<i>Serangium haleema</i>		
Referred to		<i>Sp nov</i>		
<i>Sasajiscymnus</i> , p. 483		Uttar Pradesh, p. 138	AFROZE (20)	
<i>Pseudoscymnus tsugae</i> Sasaji & McClure	VANDENBERG (3579)	<i>Serangium japonicum</i>		
Referred to		Insect prey		
<i>Sasajiscymnus</i> , p. 483		<i>Bemisia tabaci</i> (Hemiptera)		
<i>Psyllobora vigintimaculata</i>	VANDENBERG (3579)	Interactions between predator & competitor, demographic analysis &		
Japan	SASAJI (3066)	biocontrol implications, model	JING (1561)	
Honshu, Hiroshima		Predation capability, life history & reproductive parameters,	YAO (3772)	
New record		implications for control		
<i>Psylloborini</i>	CHAKRABORTY (546)	<i>Serangium purcesetosum</i>		
Key to genera		Insect prey		
Sikkim, p. 143		<i>Dialeurodes citri</i> (Hemiptera)		
<i>Pullus</i> Mulsant 1846		Seasonal population fluctuations, citrus grove, Turkey	YIGIT (3779)	
Key to species	CHAKRABORTY (546)	<i>Stethorus</i>		
Sikkim, p. 123		Uttar Pradesh		
<i>Pullus bhauaniki</i>	CHAKRABORTY (546)	New record	OMKAR (2596)	
<i>Sp nov</i>		<i>Stethorus aponicus</i>		
Sikkim, p. 123		Arachnid prey		
<i>Rhyzobius chrysomeloides</i>	JONES (1585)	<i>Panonychus osmanthus</i>		
England		Population dynamics interactions on plants, Japan	KITASHIMA (1731)	
Kent		<i>Stethorus histrio</i>		
New record		Texas		
<i>Rodolia cardinalis</i>	SALISBURY (3024)	Texas Panhandle		
England		New records	POLLOCK (2794)	
London		<i>Stethorus japonicus</i>		
New records		Arachnid prey		
Insect prey	CAUSTON (535)	<i>Tetranychus urticae</i>		
Feeding range, Galapagos Islands		Prey consumption & functional response	GOTOH (1137)	
Mortality		<i>Stethorus nigripes</i>		
Insecticide pollution effects, citrus orchards, California	GRAFTON-CARDWELL (1145)	Ion and water relations		
<i>Rodolia mayottensis</i>	FUERSCH (1001)	Moisture requirements		
<i>Sp nov</i>		Habitat preference relationships & implications for biological		
Mayotte, p. 33		control, Texas	YODER (3781)	
<i>Sasajiscymnus</i>	VANDENBERG (3579)	<i>Stethorus punctillum</i>		
Non nov		Arachnid prey		
For <i>Pseudoscymnus</i> Chapin 1962, p. 483		<i>Tetranychus urticae</i>		
<i>Sasajiscymnus kurohime</i> (Miyatake)		Daily consumption rate & prey developmental stage preferences,		
Comb nov		influences	RAGKOU (2842)	
Transferred from <i>Pseudoscymnus</i> , p. 483	VANDENBERG (3579)	<i>Tetranychus</i>		
<i>Sasajiscymnus pilicrepus</i> (Lewis)		Olfactory long-distance orientation to arachnid synomones	LENTZ (1920)	
Comb nov		<i>Biological pollution</i>		
Transferred from <i>Pseudoscymnus</i> , p. 483	VANDENBERG (3579)	Bt maize		
<i>Sasajiscymnus quinquepunctatus</i> (Weise)		Non target effects	SCHMIDT (3116)	
Comb nov		Orientation		
Transferred from <i>Pseudoscymnus</i> , p. 483	VANDENBERG (3579)	Olfactory long-distance orientation		
<i>Sasajiscymnus seboshii</i> (Ohta)		To arachnid synomones	LENTZ (1920)	
Comb nov		Rearing techniques		
Transferred from <i>Pseudoscymnus</i> , p. 483	VANDENBERG (3579)	Development duration & mortality significance	KASAP (1632)	
<i>Sasajiscymnus sylvaticus</i> (Lewis)		<i>Stethorus punctum picipes</i>		
Comb nov		Fertilizers and pesticides		
Transferred from <i>Pseudoscymnus</i> , p. 483	VANDENBERG (3579)	Buprofezin		
<i>Sasajiscymnus tsugae</i> (Sasaji & McClure)		Effects on immature stage development & survival, laboratory study,		
Comb nov		vineyards, Washington	JAMES (1521)	
Transferred from <i>Pseudoscymnus</i> , p. 483	VANDENBERG (3579)	<i>Sticholotidini</i> Weise 1901		
<i>Scymninae</i>		Australia		
Key to tribes		Taxonomic revision, nomenclatural history & distribution	SLIPINSKI (3252)	
Sikkim, p. 121	CHAKRABORTY (546)	Key to genera		
<i>Scymnini</i>		Australia, p. 390	SLIPINSKI (3252)	
Key to genera		Revision, p. 390	SLIPINSKI (3252)	
Sikkim, p. 121		<i>Sticholotidini</i>		
<i>Scymnus</i>	CHAKRABORTY (546)	Key to genera	CHAKRABORTY (546)	
Insect prey		Sikkim, p. 120		
<i>Pinnaspis aspidistrae</i> (Hemiptera)		<i>Sticholotis</i> Crotch 1874	SLIPINSKI (3252)	
Predator identification as natural enemy of pest species, Argentina	ZAMAR (3807)	Diagnosis, p. 390	SLIPINSKI (3252)	
Population density		Key to species	SLIPINSKI (3252)	
Foliar & ground dwelling non target species in B corn, Kansas	AL-DEEB (47)	Australia, p. 391		
<i>Scymnus (Pullus) louisianae</i>		<i>Syn nov</i>		
Insect prey		<i>Nesolotis</i> Miyatake 1966, p. 390	SLIPINSKI (3252)	
<i>Aphis glycines</i> (Hemiptera)		<i>Paranesolotis</i> Hoang 1984, p. 390	SLIPINSKI (3252)	
Predator bionomics & potential in suppressing prey populations, greenhouse study, Kentucky	BROWN (441)	<i>Sticholotis cooloola</i>		
		<i>Sp nov</i>	SLIPINSKI (3252)	
		Queensland, p. 396	SLIPINSKI (3252)	
		<i>Sticholotis culleni</i>		
		<i>Sp nov</i>	SLIPINSKI (3252)	
		Queensland, p. 395	SLIPINSKI (3252)	
		<i>Sticholotis quadrimaculata</i> (Blackburn 1892)		
		<i>Syn nov</i>	SLIPINSKI (3252)	

<i>Gymnoscymnus explanatus</i> Blackburn 1895, p. 391	SLIPINSKI (3252)			
<i>Sticholotis redimita</i> Weisse 1923 Lectotype designated, p. 393	SLIPINSKI (3252)	Sweden New record, recorded in burnt forest & attraction to smoke	WIKARS	(3726)
<i>Sticholotis tozeri</i> Sp nov Queensland, p. 397	SLIPINSKI (3252)	<i>Caenoscelis</i> Thomson 1863 Key to species Apterous species, worldwide, p. 887	JOHNSON	(1572)
<i>Synharmonia conglobata</i> Arachnid parasites <i>Coccipolitus hippodamiae</i> Prevalence, transmission efficiency & parasite effects on fertility as sexually transmitted disease, Europe	WEBBERLEY (3686)	Systematics Review of apterous species, p. 886	JOHNSON	(1572)
<i>Syntoma melanaria</i> Uttar Pradesh New record	OMKAR (2596)	<i>Caenoscelis angelinii</i> Sp nov Italy, p. 897	JOHNSON	(1572)
<i>Telsimita flavomaculata</i> Sp nov Karnataka, p. 51	POORANI (2800)	<i>Caenoscelis angelinii</i> group New species group, p. 897	JOHNSON	(1572)
<i>Thalassa saginata</i> Social parasitism <i>Dolichoderus bidentatus</i> (Hymenoptera) Obligate association, France	ORIVEL (2612)	<i>Caenoscelis baranowskii</i> Sp nov Guatemala, p. 891	JOHNSON	(1572)
<i>Verania polyphagi</i> Sp nov Maharashtra P. 88 Also spelt <i>Vernia polyphagi</i>	SATHE (3073)	<i>Caenoscelis baranowskii</i> group New species group, p. 889	JOHNSON	(1572)
<i>Vernia polyphagi</i> see <i>Verania polyphagi</i>		<i>Caenoscelis bertiae</i> Sp nov Pakistan, p. 894	JOHNSON	(1572)
FAMILY CORYLOPHIDAE		<i>Caenoscelis besucheti</i> Sp nov Pakistan, p. 893	JOHNSON	(1572)
Palearctic region Systematics & 2 new records	BOWESTEAD (409)	<i>Caenoscelis clarkei</i> Sp nov Ethiopia, p. 889	JOHNSON	(1572)
<i>Arthrolips fasciata</i> (Erichson 1842) Comb nov Transferred from <i>Corylophus</i> , p. 947	BOWESTEAD (409)	<i>Caenoscelis loebli</i> Sp nov Pakistan, p. 892	JOHNSON	(1572)
Redescription, p. 948	BOWESTEAD (409)	<i>Caenoscelis loebli</i> group New species group, p. 892	JOHNSON	(1572)
Syn nov <i>Clypeaster pulchella</i> Lea 1895, p. 947	BOWESTEAD (409)	<i>Caenoscelis mussardi</i> Sp nov Morocco, p. 898	JOHNSON	(1572)
<i>Arthrolips fasciata</i> France New record	BOWESTEAD (409)	<i>Caenoscelis smetanai</i> Sp nov	JOHNSON	(1572)
<i>Cutopyx</i> Palearctic region New record	BOWESTEAD (409)	<i>Caenoscelis tenerifensis</i> Sp nov Nepal, p. 896	JOHNSON	(1572)
<i>Cutopyx matthewsi</i> Sp nov Japan, p. 951	BOWESTEAD (409)	<i>Caenoscelis wangii</i> Sp nov Canary Islands, p. 890	JOHNSON	(1572)
<i>Clytastraea pusilla</i> (Gyllenhal 1810) Comb nov Transferred from <i>Sacium</i> , p. 28	KNAPP (1759)	<i>Cryptophagus</i> Herbst 1792 Balearic Islands Distribution & systematic review	OTERO	(2628)
<i>Clytastraea pusilla</i> Germany Baden-Wuerttemberg New record	BOWESTEAD (409)	Europe Iberian Peninsula Distribution & systematic review	OTERO	(2628)
<i>Clypeaster pulchella</i> Lea 1895 Lectotype designated, p. 948	BOWESTEAD (409)	Key to species Europe, Iberia, p. 52	OTERO	(2628)
New synonym <i>Oarthrolips fasciata</i> (Erichson 1842), p. 947	BOWESTEAD (409)	<i>Cryptophagus fuscicornis</i> Germany Baden-Wuerttemberg	OTERO	(2628)
<i>Corylophus fasciatus</i> Erichson 1842 Lectotype designated, p. 948	BOWESTEAD (409)	New record	ESSER	(883)
Referred to <i>Arthrolips</i> , p. 947	BOWESTEAD (409)	<i>Micrambe</i> Thomson 1863 Key to species	OTERO	(2626)
<i>Gloeosoma japonicum</i> (Matthews 1899) Redescription, p. 950	BOWESTEAD (409)	India & Nepal, p. 246	OTERO	(2626)
Syn nov <i>Rypobius japonicus</i> Matthews 1899, p. 950	BOWESTEAD (409)	<i>Micrambe baneti</i> Sp nov West Bengal, p. 246	OTERO	(2626)
<i>Gloeosoma sibiricum</i> (Reitter 1891) Comb nov Transferred from <i>Moroniillus</i> , p. 949	BOWESTEAD (409)	<i>Micrambe gonzaloi</i> Sp nov Nepal, p. 247	OTERO	(2626)
Redescription, p. 950	BOWESTEAD (409)	FAMILY CUCUJIDAE		
<i>Holopsis kirejishuki</i> Sp nov Russia, p. 946	BOWESTEAD (409)	<i>Ahasverus</i> Gozis 1881 Diagnostic characters, p. 113	SENGUPTA	(3158)
<i>Holopsis kurilenensis</i> Sp nov Russia, p. 947	BOWESTEAD (409)	<i>Airaphilus</i> Redtenbacher 1858 Key to species	SENGUPTA	(3158)
<i>Holopsis lewisi</i> Sp nov Japan, p. 945	BOWESTEAD (409)	Oriental region, India & adjacent countries Adults, p. 151	SENGUPTA	(3158)
<i>Holopsis punctipennis</i> (Matthews 1899) Redescription, p. 944	BOWESTEAD (409)	<i>Anistria</i> Erichson 1845 Key to species, p. 770	BURCKHARDT	(458)
<i>Moroniillus sibiricus</i> Reitter 1891 Referred to <i>Gloeosoma</i> , p. 949	BOWESTEAD (409)	<i>Cathartostilvanus</i> Checklists Species intercepted at harbours or timber yards, Europe	RATTI	(2862)
<i>Rhypobius japonicus</i> Matthews 1899 Lectotype designated, p. 950	BOWESTEAD (409)	<i>Cathartus</i> Reiche Diagnostic characters, p. 113	SENGUPTA	(3158)
<i>Rypobius japonicus</i> Matthews 1899 New synonym Of <i>Gloeosoma japonicum</i> (Matthews 1899), p. 950	BOWESTEAD (409)	<i>Catogenus</i> Westwood 1830 Key to species, p. 809	BURCKHARDT	(458)
<i>Sacium pusillum</i> Gyllenhal 1810 Referred to <i>Clytastraea</i> , p. 28	BOWESTEAD (409)	<i>Catogenus klapperichorum</i> Burckhardt & Slipinski 1995 Syn nov Of <i>Catogenus slipinskii</i> Thomas 1995, p. 823	BURCKHARDT	(458)
FAMILY CRYPTOPHAGIDAE	KNAPP (1759)	<i>Catogenus slipinskii</i> Thomas 1995 New synonym Of <i>Catogenus klapperichorum</i> Burckhardt & Slipinski 1995, p. 823	BURCKHARDT	(458)
Hungary Aggtelek National Park Faunal list	LYUBARSKIY (2056)	<i>Cryptamorpha</i> Wollaston 1854 Key to species	SENGUPTA	(3158)
<i>Atomaria strandi</i>		Oriental region, India & adjacent countries Adults, p. 197	SENGUPTA	(3158)
		<i>Cryptamorpha abnormis</i> Sp nov West Bengal, p. 200	SENGUPTA	(3158)
		<i>Cryptamorpha nepalensis</i> Sp nov Nepal, p. 205	SENGUPTA	(3158)